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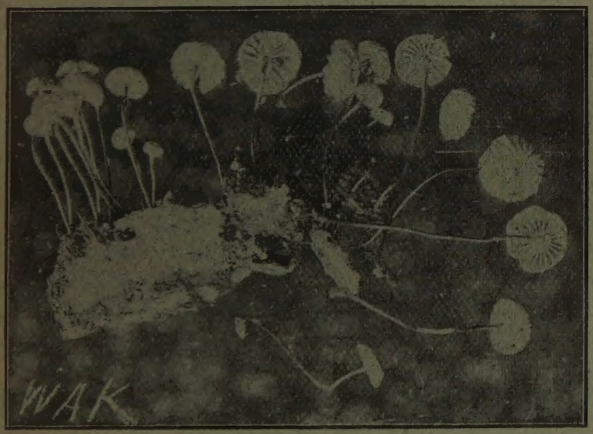
MYCOLOGICAL BULLETIN

W. A. KELLERMAN, Ph. D
OHIO STATE UNIVERSITY



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Mycological Bulletin

No. 86

W. A. Kellerman, Ph. D., Ohio State University

Columbus, February, 1908

BUT A WORD BY THE EDITOR

We can not eat moulds, but we can study them. Supt. Sumstine gives us another lesson—this time dealing with some rare species. His outline drawings give faithfully their appearance under the microscope.

The illustration of the Puff-balls will be enjoyed by all. Mr. Smith has promised many specimens of his handiwork, and when we have good photographs we can get good half-tones. We are indebted to him also for some account of the pear-shaped Lycoperdon.

MORE MOULDS

DAVID R. SUMSTINE.

About 200 species of Moulds have been described. After deducting the probable synonyms and excluded species, there remain about 130 good species. Of this number only twelve or possibly fifteen species have been reported for America. This is a very small number for our country compared with the whole number of known species.

The European mycologists have carefully studied the life history of many European species, but the American forms have received very little attention.

In my critical study of the family *Mucoraceae*, two interesting species were recently found. These species, however, do not belong to the family *Mucoraceae*. The spores are not enclosed in a sporangium as in the common black mould, but are borne singly or in chains on enlarged cells.

PIPTOCEPHALUS REPENS Van Tieghem. This species can be easily recognized by the dichotomously branched conidiophores and the chains of conidia on the ultimate branches. The general appearance reminds one of *Sporodinia aspergillus*. So far as I know, this is the first time that it has been reported for America.

CHAETOCLADIUM BREFELDII Van Tieghem et Le Monnier. This is supposed to be parasitic on other moulds. It is known by its verticillately branched sporangiophores ending in a long sterile tip. The spores are borne singly on swollen parts of the branches.

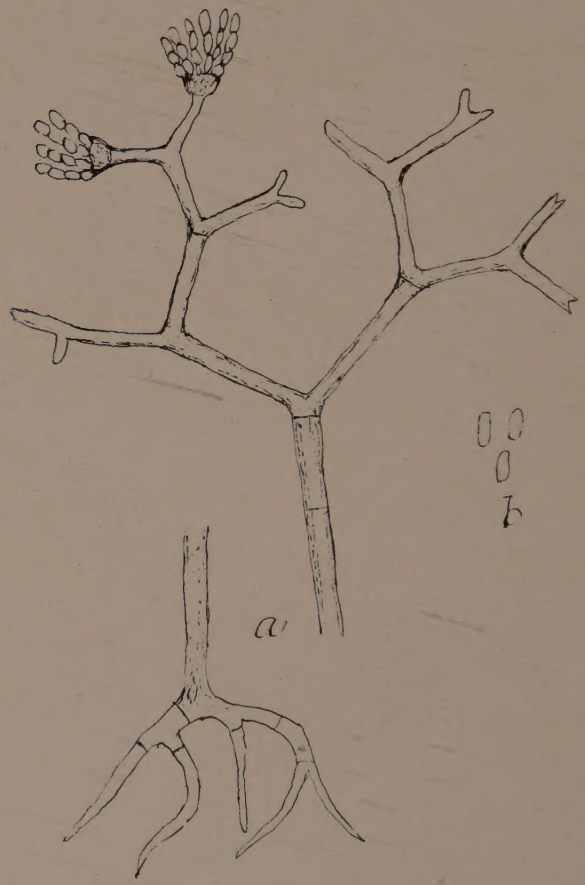

Fig. 282. PIP-TO-CEPH'-A-LUS RE'-PENS. See article on Moulds.

Both moulds were found on the dung of the camel, growing with other moulds. The greatly enlarged drawings will give an idea of the general appearance of these two species.

Specimens of moulds from the readers of the MYCOLOGICAL BULLETIN would be appreciated.

Wilkinsburg, Pa.

EXPLANATION OF FIGURES.

Fig. 282. a—Sporangiophore of Piptocephalis repens; b—Spores of same.

Fig. 283. a—Branch of sporangiophore of Chaetocladium brefeldii; b—Spore of same.

Fig. 283. CHAE-TO-CLA'-DIUM BRE-FEL'-DI-I. See article on Moulds.

NOTES FROM MUSHROOM LITERATURE, X

W. A. KELLERMAN.

The botanical journals are crowded with literature directly or indirectly interesting to those who pay attention to mushrooms. Many new species are being found; the old ones are being studied. Then, again, the list of edible species is being extended, and along this line the readers are sure to be interested. But too many accidents are occurring—cases of poisoning that would not occur if persons would avail themselves of information that may be found in any of the mushroom books.

It may be advisable in this connection to reproduce an account of poisoning by eating Amanitas, which Mr. O. E. Jennings published in the September Number of the Journal of Mycology. It is as follows:

"A Case of Poisoning by Amanita Phalloides.—The writer's attention was recently called by Judge J. D. Shafer, of Pittsburg, to a newspaper account of a fatal case of mushroom poisoning at the little village of Deep Valley, in the extreme southwestern point of Pennsylvania, and, acting upon Judge Shafer's urgent suggestion, the case was immediately investigated.

"It was found that the village physician, Dr. Philip Dinsmore, together with three other members of the family and Mr. Frank Roberts, the man-of-all-work, had eaten with the evening meal, between six and seven o'clock, Sunday, August 4, a mess of mushrooms gathered that afternoon by Mr. Roberts. There had been about a quart of the mushrooms and they had been prepared by frying in flour and butter. All ate of the mushrooms excepting one little girl.

"Between one and two o'clock the next morning all who had eaten of the mushrooms were taken violently sick, vomiting excessively and having an extreme diarrhoea. These symptoms continuing during Monday, Dr. H. C. Rice, of Freeport, Pa., was summoned and a treatment begun consisting of the sub-cutaneous injection of atropine and as far as possible the administration of narcotics and oleaginous purgatives.

"The vomiting and diarrhoea continued for about three days, other symptoms being sub-normal temperature, more or less delirium, and in the case of Dr. Dinsmore, severe muscular cramps of the limbs and extremities, and, evidently, of the muscular walls of the abdomen also, the patient dying early Thursday morning.

"At the time of the writer's visit (Saturday, August 10), Mr. Roberts had so far recovered as to be about, but the other three patients were still confined to their beds. The vomiting and diarrhoea had ceased, but there was considerable enlargement of the liver with distention of the gall-bladder and the patients were becoming jaundiced.

"Saturday morning Mr. Roberts escorted the writer to a little patch of about two acres of woods, lying at the base of the hillside along the creek, where the mushrooms had been gathered for the fatal meal. Two species were abundant, *Cantharellus* and the white form of *Amanita phalloides* Fr., and the latter species was indicated as the one composing the greater part of the mess taken. Other species indicated as having been also selected were *Amanitopsis vaginata* (Bull.) Roz., and *Russula emetica* Fr.—a very few. The only test applied in selecting the fungi had apparently been the pleasing appearance and the ten-

derness of the mushroom. Robert's identification of *Amanita* as composing the greater part of those eaten was independently verified by one of the patients, Dr. Dinsmore's sister, who had prepared the fungi for eating.

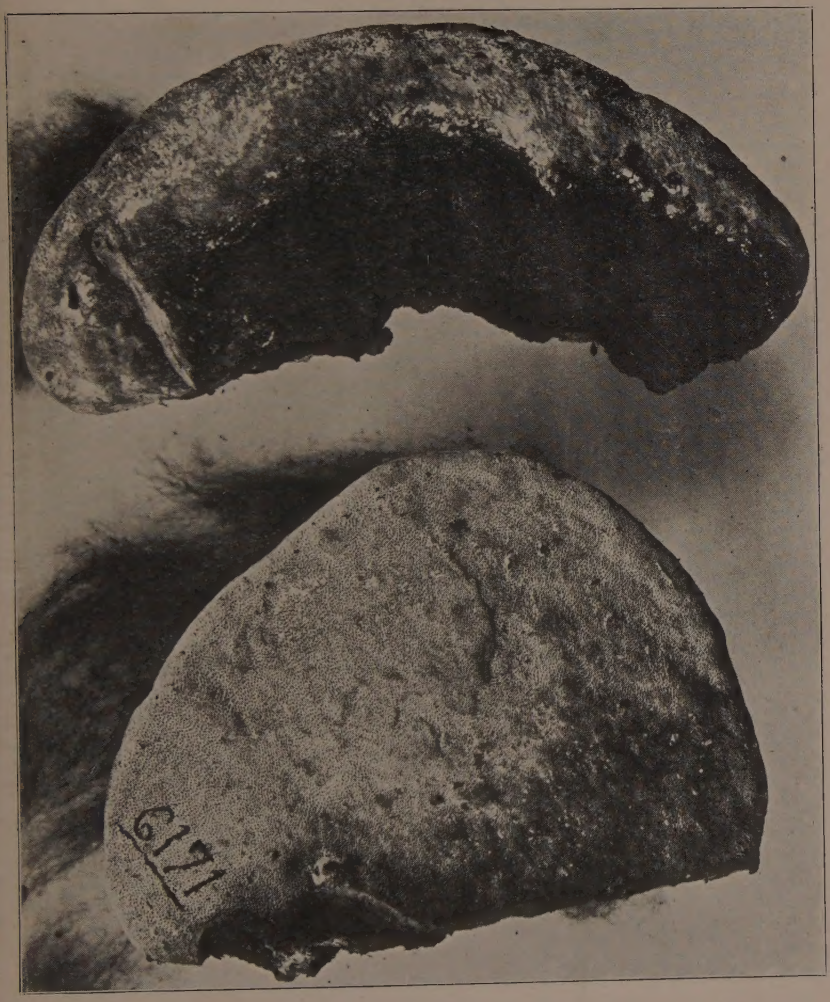

Fig. 284. PO-LY'-PO-RUS FRAX-I-NOPH'-I-LUS. Ash-loving Polypore. A common woody fungus found on Ash trees. It attacks the trunks at wounds, or at exposed places where decay has begun. Specimens furnishing the photographs were collected near Chillicothe, Ohio.

"From the evidence obtained it is quite clear that the poisoning was due to the deadly Amanita, and it will be noticed that the symptoms exhibited were in close agreement with those ascribed to *phallin* poisoning by Chestnut, although Dr. Rice characterized the intestinal discharges as "serous" and not assuming the "rice-water" condition, and neither extreme salivation nor decided suppression of the urine was noticed.

"In connection with the supposed action of *phallin* in decomposing the blood corpuscles and in bringing about the escape of the blood serum from the system by way of the alimentary canal, it may be mentioned as a partial confirmation that the undertaker experienced considerable trouble in preparing the corpse for burial,—less than half the usual amount of blood could be extracted,—thus indicating a depletion of blood supply before death occurred."—O. E. Jennings, in *Journal of Mycology*.

THE PEAR-FORM PUFF-BALL

G. D. SMITH, AKRON, OHIO.

The pear-form puff-ball belongs to the genus *Lycoperdon*, which may be characterized by having a flaccid peridium which opens into a small, definite mouth at the top.

It has a capillitium of long-branched and intertwining threads. The spores are usually globose. They may or may not have a sterile base.

The cortex is sometimes smooth, but is usually covered with scales or spines. None of this genus are very large. The pear-form puff-ball—*Lycoperdon pyriforme*—is sometimes shaped like a pear, but more often it is globose, or where several are crowded together, it is flat, contorted, and quite irregular.

It grows on logs, stumps and even on the ground. Quite frequently it occurs in large clusters, or we may occasionally see it covering almost the entire surface of a decaying log. I have seen more than a bushel on one log.

The surface, when young, is nearly white, but soon becomes covered with brownish scales. It is supplied with an abundance of white mycelial threads that usually stick to it when pulled from the log on which it grows.

It is most abundant in the months of September and October, but I have found it in July and August. The October crop is usually the best for eating, as it does not begin to decay as quickly as in warm weather. It compares favorably in flavor with the other lycoperdons and, in its prime, it certainly ranks close to the gem puff-ball in beauty.

Fig. 285. LY-CO-PER'-DON PY-RI-FOR'-ME. Photo. G. D. Smith.

Fig. 286. Bo-le'-tus chry-sen'-ter-on. This is a common Boletus, having the flesh yellow, or golden within, as the name indicates. The tubes change to blue where wounded. Grows in woods and along mossy banks. McIlvaine says he has eaten plentifully of this species, and that the flesh is sweet, delicate and toothsome. Photo, G. D. Smith.

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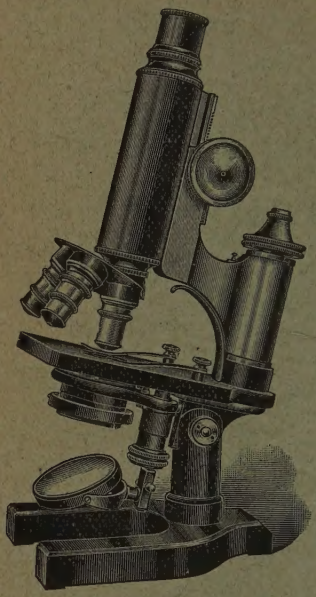

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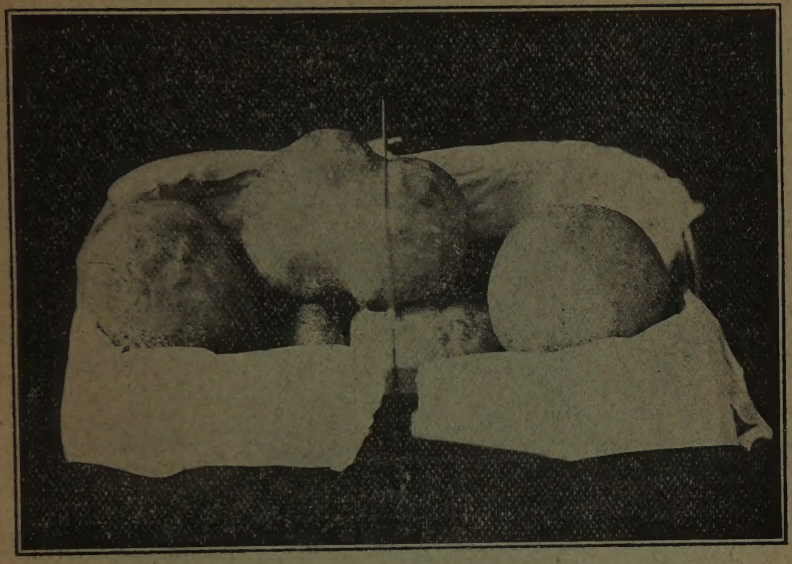

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